;login:

The USENIX Association Newsletter

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The closing date for submissions for the next issue of *;login:* is April 28, 1989

NOTICE

;login: is the official newsletter of the USENIX Association, and is sent free of charge to all members of the Association.

The USENIX Association is an organization of AT&T licensees, sub-licensees, and other persons formed for the purpose of exchanging information and ideas about UNIX[†] and similar operating systems and the C programming language. It is a non-profit corporation incorporated under the laws of the State of Delaware. The officers of the Association are:

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Contributions Solicited

Members of the UNIX community are encouraged to contribute articles to *;login:*. Contributions may be sent to the editors electronically at the addresses above or through the U.S. mail to the Association office. The USENIX Association reserves the right to edit submitted material.

;login: is produced on UNIX systems using *troff* and a variation of the −me macros. Contributions should be in *n/troff* input format, using any macro package.

UUNET Subscriptions

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Acknowledgments

The Association uses a SUN[‡] 3/180S running SUN OS for support of office and membership functions, preparation of *;login:*, and other Association activities. Connected to the SUN is a QMS Lasergrafix[*] 800 Printer System donated by Quality Micro Systems of Mobile, Alabama. It is used for general printing and draft production of *;login:* and *Computing Systems* with *ditroff* software provided by mt Xinu. The membership and mailing lists are maintained using Sybase.[#]

UNIX Transaction Processing Workshop Program

May 1-2, 1989
Pittsburgh Hilton Hotel
Pittsburgh, PA

Monday – May 1, 1989

9:30-10:30   Greetings and Keynote

Keynote – Dr. Alfred Spector, Carnegie Mellon University
Critical Technologies for Transaction Systems

10:45-12:15   A UNIX-based Transaction Processing Monitor
Dan Hydar, Marine Terminal Computer Systems, Inc.

Distributed On-Line Transaction Processing Systems on UNIX
Kirit Talati, VI Systems, Inc.

1:30- 3:00   The TUXEDO TP Manager for UNIX System V
Mark Carges, AT&T Bell Laboratories

High Availability in a UNIX Transaction Processing Environment
Steve Adolph, Microtel Pacific Research Limited

3:30- 5:45   UNIX-based Transaction Processing
Berl Hartman, Sybase, Inc.

A Transaction Model for OLTP Systems
Bill Claybrook, Stratus Computers, Inc.

Protocols for Distributed and Nested Transactions
Dan Duchamp, Columbia University, New York

6:00- 8:00   Reception

Tuesday – May 2, 1989

9:00-10:30   Transaction Recovery Using Write-Ahead Logging
C. Mohan, IBM Almaden Research Center

Distributed Transaction Integrity
Dorm Fulton, UNISYS

10:45-12:15   A Fault-Tolerant Client-Server Transaction Model
Paul Lockwood, University of California, Santa Barbara

UNIX Extensions for High-Performance Transaction Processing
Larry Clay & Mike Franklin, Microelectronics and Computer Technology Corp.

1:30- 3:45   Multiprocessor Main Memory Transaction Processing
Jeff Naughton, Princeton University

A UNIX-Based OS with OLTP Support
Franklin Reynolds, Concurrent Computer Corp.

The Nested Top-level Lazy Server-based Transaction
Jeff Eppinger, Stanford University

4:00- 5:00   Panel and Wrapup

For registration and hotel information contact the USENIX Conference office at (213) 592-3243 or
usenix!judy.

Call for Papers
Workshop on
Large Installation Systems Administration III
September 7-8, 1989
Austin, TX

In light of increasing attendance at the workshops on Large Installation Systems Administration, plus contributions from various places (academia to standards efforts to commercial development work on system administration tools), the third annual workshop on this subject will again be chaired by Alix Vasilatos in Austin, TX on Thursday and Friday, September 7th and 8th, 1989.

For the first time, a program committee will be reviewing submitted papers on subjects including, but not limited to:

Automating systems administration chores
Network management
Distributed services
Backup and archiving
Spooling/Queuing schemes
Configuration synchronization
Accounting/Passwd maintenance
Electronic communication (USENET/News/Notes/Mail)
Software distribution
Reliability enhancement

Papers can range in length from "very short" (1-3 pages) to not over 14 pages including all figures, diagrams, etc. Complete papers only, please, even if short. Abstracts and outlines will not be accepted. Include a description of the unique characteristics of the site, an outline of the problem, and a description of the solution (detailed enough that fellow administrators can implement it). Workshop proceedings will be available at the workshop.

The deadline for submissions is **June 30, 1989**. For further details about the workshop, contact:

Alix Vasilatos
Open Software Foundation
11 Cambridge Center
Cambridge, MA 02142

alix@osf.org
uunet!osf.org!alix
617-621-8722

For details about registration, contact the USENIX Conference Office.

Call for Participation

Workshop on Experiences with Building Distributed (and Multiprocessor) Systems†

October 5-6, 1989
Ft. Lauderdale, FL

Goals: The goal of this workshop is to bring together individuals who have built, are building, or will soon build distributed and multiprocessor systems, especially operating systems. The workshop will feature full presentations, panels, work-in-progress presentations, and possibly tutorials on aspects of building and testing these systems. The workshop will provide a forum for individuals to exchange information on their experiences, both good and bad, in designing, building, and testing their systems. This includes experiences with coding aids, languages, distributed debugging tools, prototyping, reuse of existing software, performance analysis, and lessons learned from use of such systems.

Submissions: *Ten* copies of each submission should be mailed to the program committee chair (address below) no later than **1 June 1989**. Submissions are invited on any topics related to the workshop in the form of papers or extended abstracts, although the program committee will give preference to full papers. Furthermore, the committee will give preference to submissions describing experiences with actual systems.

Panels and Tutorials: Suggestions for panel sessions and tutorials, including recommended participants, should be mailed to the program chair no later than **1 May 1989**. Such submissions should include a description of the relevance to the goals of the workshop, and the qualifications of the participants suggested.

Important Dates

Panel & Tutorial proposals	1 May 1989
Paper submissions	1 June 1989
Program Committee decisions	14 July 1989
Camera ready copy due	1 August 1989
Workshop	5-6 October 1989

For Further Information, contact:

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Call for Participation

5th USENIX Computer Graphics Workshop

November 16-17, 1989
Doubletree Hotel – Monterey Convention Center
Monterey, CA

The 5th USENIX Computer Graphics Workshop will be held in Monterey on Thursday and Friday, November 16-17, 1989. The theme of the workshop is "personal graphics." By this, we mean the use of computer graphics to aid, benefit, or amuse a single person. Generally, personal graphics applications are highly interactive, so that the user has a great deal of control over the result. Furthermore, the graphics is frequently not an end product, but is instead a communication medium between the user and computer. Examples of personal graphics might include desk-top publishing, data visualization programs (e.g., MacSpin), windowing systems, micro-world simulations (Kay's vivarium?), and "performance" graphics (e.g., video weirdness). It probably does not include ray-tracing, yet another VLSI graphics chip, or fast rendering algorithms. A distinguishing feature is that the user is included as an integral part of the description of the system.

Personal graphics is becoming increasingly important as the cost of high-performance computing gets lower and lower, so that "Joe Public" is exposed to better and faster graphics than was previously possible. You only have to look at the progression from PC to Macintosh to NeXT to see this trend. One question that could be addressed by presentations in this workshop is "How are 'ordinary people' going to effectively use computer graphics in their daily lives?"

In addition to traditional full-length papers, we will entertain proposals for more informal short presentations and panel discussions. Submissions for the workshop will be judged on their intrinsic merit, but preference will be given to those which bear closely on the theme.

Extended abstracts (300-700 words) or position papers should be submitted by **July 3, 1989**. Authors will be notified of acceptance by **July 17, 1989**. Materials for inclusion in the proceedings should be submitted by **October 2, 1989**. Submissions may be made electronically or as hard-copy. Electronic submissions should be plain text, *troff* (-ms or -me preferred, do not use -mm), *LaTeX*, or PostScript. Mail electronic submissions to *usenix-graphics@crim.eecs.umich.edu*, or send hard-copy to the workshop chair

Spencer W. Thomas
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1101 Beal Ave.
Ann Arbor, MI 48109-2110
(313) 936-2616

Call for Papers
International Seminar
on
Current Developments
and
Future Trends of UNIX-based Systems

12-13 September, 1989

organised by
Malaysian UNIX Users Association (MALNIX)
in cooperation with
Malaysian Institute of Microelectronic Systems (MIMOS)

Objectives

To provide a forum for discussion and exchange of information, ideas and experiences on current developments and future trends of UNIX-based systems.

To promote research activities related to UNIX in Malaysia and the region.

Seminar Topics

Parallel Processing	Office Automation
Real-time Applications	Database Systems
Software Development Tools	Networking
Emerging Standards	UNIX in Commercial Environments
UNIX on PC	User Interfaces
System Security	

Submission of Papers

A copy of an extended abstract, limited to about 2000 words, should reach the Organiser by **April 3, 1989**. Notification of acceptance will be sent to the authors by May 22, 1989. The full paper shall be sent, by August 21, 1989, to:

The Organiser
MALNIX/MIMOS International Seminar
7th Floor, Bukit Naga Complex
Jalan Semantan
50490 Kuala Lumpur, MALAYSIA

Phone: (60) 3 2552 700   Fax: (60) 3 2552 755
E-mail: malnix@rangkom.my or uunet!mimos!malnix

CALL FOR PARTICIPATION

SECOND WORKSHOP ON
WORKSTATION OPERATING SYSTEMS

Sponsored by:

IEEE Computer Society - Technical Committee on Operating Systems
Asilomar Conference Center, Pacific Grove, CA.
September 27-29, 1989

The Second Workshop on Workstation Operating Systems (WWOS-II) will bring together a number of researchers and developers to discuss their work and experiences in workstation operating systems. As workstation technology and man-machine interfaces advance, the operating system must evolve. Potential topic areas include:

- New workstation operating systems
- OS changes for the workstation environment (e.g. graphical interfaces)
- Scheduling and resource management
- Workstation architectures
- Multi-processor considerations

To facilitate the dialog that is so valuable in a workshop setting, attendance will be limited to 60 active workers in the field.

Registration requests should be addressed to Joseph Boykin, the General Chair. This request should include a 1-3 page position paper describing the participant's interest and future directions related to workstations and workstation operating systems as well as insights and lessons gained from recent research and practical experience.

Those interested in presenting the results of their research, or current work-in-progress, should submit a 3-5 page paper to Luis-Felipe Cabrera. Papers must be submitted by April 15, 1989. Acceptance will be made by June 1 and final copy is due by July 1, 1989. Selection of papers will be made by the program committee:

David Anderson, *UC Berkeley*
Kenneth Birman, *Cornell University*
Anita Borg, *DEC WRL*
Luis-Felipe Cabrera, *IBM (chair)*
Sam Chanson, *U. of British Columbia*
Robert Hagmann, *Xerox Parc*
Paul Leach, *Apollo Computers*
Andy Hisgen, *DEC SRC*
Sape Mullender, *CWI, Amsterdam*
Ike Nassi, *Encore Computer*
Mike Powell, *SUN Microsystems*
David Presotto, *AT&T Bell Laboratories*
Bud Tribble, *Next Computers*
John Wilkes, *Hewlett Packard*

Registration, including a copy of the proceedings:	Pre-registration	On-site
Computer Society Member	$160	$215
Non-member	$210	$275
Student Member	$95	$125
Lodging: $55 per night for double occupancy room, breakfast, lunch, and dinner.		

General Chairman: Joseph Boykin
Encore Computer Corp., 257 Cedar Hill Street
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Book Review: C Traps and Pitfalls

by Andrew Koenig
(New York: Addison-Wesley) 147 Pages, $16.25

Reviewed by Marc D. Donner

IBM Thomas J. Watson Research Center
ibm.com!donner

C Traps and Pitfalls is another book, like the *C Programmer's Handbook* by Bolsky, that achieves excellence by picking one problem and solving it well. Koenig seeks to exhibit a number of programming errors that are characteristic of C, explain how they occur, what their symptoms are, and suggest ways to reduce their occurrence in programs. As such the text focuses almost exclusively on specific implementation examples and does not attempt to enunciate abstract principles, though several important principles are explained rather matter-of-factly. This isn't fair, but it might have been fun to title the book "C Puns and Anagrams."

One unique feature of this slim volume is that it has value both to experienced and novice C programmers. That a book not simply a reference work could have something to offer both to master programmers and to apprentices is rather unusual, since their needs are usually so disparate.

The text won't keep novices from making the errors it describes, but it will probably help them recognize the symptoms when they occur and reduce the time to identifying and resolving them.

For experienced C programmers this book will evoke a fond memory of pernicious bugs and clever solutions, and it might well teach something new. Even if it teaches nothing, experienced programmers will feel toward this book as Hobbits feel toward genealogies [J. R. R. Tolkien, *The Fellowship of the Ring*, Houghton Mifflin, Boston 1965, page 17]: "Hobbits delighted in such things, if they were accurate: they liked to have books filled with things they already knew, set out fair and square with no contradictions." However, I predict that it will be a rare C programmer, however wizardly, who finds no treasure in this little book.

One particularly strong point in Koenig's treatment of some of C's peculiarities is his reference back to the principles practiced by the original designers. He has tracked down several of the oddities to specific problems entailed by the transition from B to C and a variety of issues that cropped up as C evolved (for example, the discussion of | and || on page 19). Whenever possible, he tries to provide some suggestive mnemonic or story that will help the reader remember rather than just explaining.

The book breaks mistakes down into several classes. Koenig treats the syntactic pitfalls early and relatively briefly. He then goes into considerably greater length on what he calls semantic pitfalls but which might better be referred as primitive semantic pitfalls.

Subsequent sections explore progressively more subtle semantic problems. He recognizes that the boundary between oddities and problems with the language and oddities and problems with program portability is a fine, and devotes a chapter to a brief exploration of portability issues. Most of this treatment is based on a specific example, whose behavior and misbehavior Koenig subjects to a thorough analysis.

The section on the preprocessor might be supplemented or replaced by the "C Puzzle Book" or some other more detailed treatment, but it is quite adequate for this volume.

There are digressions into ANSI C issues from time to time, but the book is quite comprehensible to non-ANSI C hackers and in fact is probably most relevant to mainstream C programmers.

The only set of issues that might have been treated but were not are some of the old-*pcc*-peculiarities versus modern-*cc* features that have translated themselves into unexamined stylistic practices in the C programming community. An example of this is the practice, still widespread, of creating a type-suggestive three-character prefix for the names of fields in a structure. An example is the *timeval* structure returned by *gettimeofday()*:

```
struct timeval {
    /* seconds since Jan. 1, 1970 */
    long tv_sec;
    /* and microseconds */
    long tv_usec;
};
```

The convention that makes us put the tv_ in front of each field is a defensive practice from an old version of the portable C compiler that suffered from the symbol table defect that each field name in a program had to be unique. This requirement is gone from all but the most backward of C compilers, but its legacy is so deeply established that we have almost forgotten the reason for it.

This book can be read profitably by the novice C programmer annually for the first five years, and then kept around to reread annually by the advanced programmer for spiritual renewal. As with many other excellent things, its excellence stems from its simple and direct message, unmuddied by ambitious and self-important pomposity.

C++ Software Tape

The 1988 USENIX software tape contained C++ software. It has been sent to all 1988 Institutional and Supporting members of the Association.

Individual members of USENIX who wish to obtain a copy of the tape may request it from the Association Office. It requires no AT&T nor UC license. You will be sent a requestor "Tape Release Form." The completed form plus a check for $125 should be returned to the Association, whereupon the tape will be sent out, postpaid in the US. Foreign individuals will be billed for the additional (air) postage.

The tape, in *tar* format at 1600 BPI, contains:

GNU C++ Version 1.21.0 (Michael Tiemann)
OOPS (Keith E. Gorlen)
Storage management class and String class... (Peter A. Buhr)
InterViews 2.3 (Mark A. Linton)
C++ Subroutines for string manipulation (Arthur Zemon)

The tape is not available to non-members of the USENIX Association.

NOTICE: Some copies of the C++ tape are faulty. If you cannot read your tape, return it to the USENIX Office.

Summary of the Board of Directors' Meeting

San Diego, CA; 29-30 January 1989

Attendance: Stephen C. Johnson, Rob Kolstad, Marshall Kirk McKusick, Sharon Murrel, Michael D. O'Dell, Alan G. Nemeth, John S. Quarterman, Deborah K. Scherrer; Rick Adams, Judith F. DesHarnais, John L. Donnelly, Donnalyn Frey, Neil P. Groundwater, Greg Hidley, Daniel Karrenberg, Keith Muller, Peter H. Salus, Ellie Young.

UUNET

Adams informed the Board that all agreements had been signed; that the lease and lease-guarantee had been perfected; and that UUNET hoped to move in early March. As the FIB won't assign the loan, UUNET is leasing the Sequent from USENIX.

Adams reported that UUNET volume was growing at the rate of about 8-10% per month. There was a $68,000 gross in December 1988; about $725K for the 1988 year.

Elections

There was a discussion of procedures for the 1990 Board elections. A subcommittee (Murrel, McKusick, Johnson) will discuss whether a By-Law change should be put to the membership. The chair of the nominating committee will be decided upon by the time of the next Board meeting.

Baltimore Conference

Groundwater stated that papers were due next week and that the Program Committee was planning to meet at the beginning of March. He has approached the NCSC for a Keynote speaker. McKusick volunteered to act as Groundwater's Board liaison.

Donnelly reported on the status of the exhibit for the Baltimore conference. He distributed a new floor layout plan which, he said, would not influence the dollar estimates.

DesHarnais discussed the budget based on 2000 attendees. Salus remarked that we might well have 2500. The question of the half-year membership/subscription was brought up. Salus stated that there was no reason to have only calendar-year memberships. It was agreed that there be a student tutorial fee that would cover the marginal cost of additional attendance (notes, binders, coffee breaks, etc.). A small percentage of places will be set aside for students.

Standards

Quarterman reported that the *tar/cpio* project had finally been completed at year's end. There was a brief discussion of the "Watchdog" committee, which was reconstituted as Nemeth, Quarterman and McCarron. There was a discussion of the contents of McCarron's commentaries on the P1003 activities. The Board felt that they were not at all out of line.

There was a discussion of ISO Technical Committee 22, Working Group 15. The Association is represented on the Technical Advisory Group, but not directly on the Working Group. Quarterman announced that there was now a new P1003.7 subcommittee on Systems Administration which would meet in July in San Francisco.

Future Meetings

DesHarnais reported that the Association would be back in the Shoreham in 1990. There was a general snowed-in feeling.

There was a lengthy discussion of possible 1993 sites, as UniForum will be held in March.

Online Index

(See pages 12 and 13.)

Proceedings Subscriptions

Salus and Young explained their intent to implement the earlier Board motion by allowing *all* interested parties to subscribe to a year's proceedings for $100. (See page 21.)

Conference Subsidies

Salus and Young were given permission to award subsidies to students for attendance at Technical Conferences.

USENIX Online Index and Library

Deborah Scherrer

As the quantity of USENIX and USENIX-related publications rapidly expands, and the quality becoming increasingly attractive, the need has arisen for some sort of online access, at least to an index of published articles. USENIX has authorized a proposal to fund, implement, and make available an electronically accessible index to USENIX and related groups published articles. Versions of abstracts and/or full papers will also be made available in cases where authors are willing to donate them. Articles to be referenced will be drawn from (past and future):

	Entries (approx)
USENIX	
Conference proceedings	550
Workshop proceedings	150
Computing Systems	8
Newsletters	100
EUUG	
Conference proceedings	200
Newsletters	150
Software Tools Users Group	
Conference proceedings (held jointly with USENIX)	40
AUUG	
Conference proceedings	?
Newsletters	?
JUS	
Conference proceedings (yes, in Japanese)	?
TOTAL (approx)	1300

Other sources (AFUU, GUUG, NZUSUGI, etc.) will be continually evaluated and included as deemed suitable.

The index will include references from as many past issues of the publications as can be obtained, and kept current as new issues are released. In addition, authors of USENIX publications are being given the opportunity to donate their full paper, or abstract only, for inclusion and distribution through the online library.

The online index and library will reside at UUNET and be freely available. Users will be able to retrieve both the index and any available online abstracts or papers, individually, by simple email request. Specific details on retrieval will be forthcoming. Although the library and index will be most effectively used electronically, the index will also be printed periodically and made available through the USENIX office, for those without email access.

If You Have Ever Had a Paper Published by USENIX: Donation of either a paper or an abstract to the library is purely voluntary. Papers can be donated and distributed either with a copyright notice, or a copyright release, at the copyright holder's discretion. An appropriate release form, festooned with the appropriate signatures, is absolutely required before any paper or abstract will be made available electronically. Authors wishing to donate papers or abstracts need to

1. Assure themselves (and us) that they own the copyright.

2. Sign an **Author Release Form**.

3. Send an electronic version of the paper to *index@usenix.org* or *uunet!usenix!index*.

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Authors may choose to donate abstracts only, even in cases where a full paper has been published. Authors donating abstracts only also need to sign the form and email a copy of the abstract, if they have one. If the abstract

is not available electronically, and the author(s) gives permission for publication, USENIX will key in a copy from the publication itself (assuming the abstract had been published). USENIX does **NOT** have sufficient resources to key in full papers.

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Paper Title: _____

Author(s): _____

Where/when published: _____

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FaceSaver does UUNET

The USENIX database of faces from the Phoenix, Dallas and San Francisco conferences is being installed on UUNET for access by one and all. All attendees at these three conferences whose faces were saved have been sent notices regarding their portraits and the permission which they gave or denied for such a distribution. Unless this notice was returned by the post office as undeliverable, all portraits for which we have affirmative releases are being sent to the database.

The portraits are either 108 (wide) × 128 (high) × 8 bits (non-square pixels) or 96 (wide) × 128 (high) × 8 bits (square pixels), depending on the conference at which they were acquired. There is a fixed length header with name, email address, and pixel format, followed by the raw data.

Several simple programs to deal with the images are also available, and it is hoped that others will be donated.

Access to the portraits will be available via electronic mail. Send mail to *uunet!faceserver* (yes, that's sErver, not sAver) with the subject line of "help" or "send *email-address*" to retrieve the face. For example, typing

```
echo send rick@uunet.uu.net | \
mail uunet!faceserver
```

would get Rick Adam's picture returned to you.

If you are uncertain about the status of your portrait, or need to correct the data accompanying it, send e-mail to *uunet!usenix!facesaver*.

Lou Katz, Saver of Lost Faces

In the last issue of *;login:* the EUUG was introduced by Philip Peake. The EUUG is one European effort which has been shown to work. It has proven itself to be more than the sum of its members: activities are undertaken at both the national and the European level. A natural question is to what extent and to what purpose? Each national group will, in turn, clarify this point here.

The Netherlands UUG

The purpose of most groups is to provide a platform for the exchange of information and ideas for UNIX users. In recent years the type of user has changed dramatically. The distinction made between academic members and industrial members in our fee structure (in general, a member is an organisation and not an individual) provides a basis for an understanding of the types of interests and conflicts in interests, involved. As most academic sites have been members since the very beginning, few new academic sites have been added to our membership. The number of industrial sites, however, increases steadily. A 50% increase in membership over the last 18 months has been booked. At the end of last year the NLUUG had 230 site members: 158 industrial members and 72 academic members. As a group we have decided to limit our scope to professional UNIX users, but even within this group there is a very broad diversity of users, and thus also of interests. A few years ago, for example, a number of hardware vendors asked the NLUUG to initiate the promotion of UNIX, providing a basis for joint collaboration on their part. This has resulted in an X/OPEN group in which the NLUUG has been given special membership. Activities, as such, however, require considerable deliberation: are they acceptable to all members and if so, to what extent? Up to now, we have been able to find consent within the group.

The problem of conflicting interests is also confronted twice a year when planning conference programs. The NLUUG holds two conferences a year: one more general conference with an exhibition, one more technically oriented conference with poster sessions. Each conference is based on a theme. In the past user-interfaces, graphics, IPSEs, standards, databases and networking have been addressed. The programme committee is faced with the problem of trying to find something of interest for each and every member, given the topic. Both research developments and the current market situation need to be given equal attention. One of the ways of coping with differences in level of expertise is to organize tutorials, held parallel to the more technical sessions, open to all participants. Conference proceedings were produced for the first time for our last conference – a conference which included a number of foreign speakers, experts in their fields. The inclusion of speakers from outside the Netherlands was an experiment which was well received. Remember, however, that most native speakers of Dutch speak English. This is not the case in other European countries. Nevertheless, quite a few members of other national groups came to the Netherlands for this conference. At the European level, all groups have agreed to exchange dates of activities and to give conference guests from other groups the same rights as members of their own group.

Conflicting interests play no role in one of the other main activities of the NLUUG: EUnet, the USENET of Europe. Each country has its own national backbone for which they are responsible. The EUUG is responsible for the European backbone, known to most as *mcvax*. Up until very recently the NLUUG did not have its own national backbone – *mcvax* was both the national and European backbone. This has changed. The Netherlands now has its own backbone – *hp4nl*.

Most of the NLUUG work is done by volunteers, but not all. Four years ago the decision was made to employ someone to answer phone calls and questions, organize the Board, take care of administration, etc. This has made it possible to cope with the increasing number of members and activities and to still be seen as a reliable organisation.

For any further information, contact

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p/a Xirion bv
World Trade Center
Strawinskylaan 1135
1077 XX Amsterdam, The Netherlands

nluug@hp4nl.uucp

The full program for the Summer 1989 USENIX Conference (Baltimore, June 12-16) will appear in May/June.

USENIX 1990 Winter Conference

The Winter 1990 conference will be held at the Omni Shoreham in Washington, DC, on January 22-26. A call for papers will appear in the next issue of *;login:* and on *comp.org.usenix*.

Future Events

**UNIX Transaction Processing Workshop,
Pittsburgh, May 1-2, 1989**
See page 3.

**USENIX 1989 Summer Conference and
Exhibition, Baltimore, Jun. 12-16, 1989**

**Large Installation Systems Administration
Workshop, Austin, Sept. 7-8, 1989**
See page 4.

**Distributed Processing Workshop,
Fort Lauderdale, Oct. 5-6, 1989**
See page 5.

**Graphics Workshop V,
Monterey, Nov. 16-17, 1989**
See page 6.

Long-term USENIX & EUUG Schedule
Sep 18-22 '89 Vienna, Austria
Jan 22-26 '90 Omni Shoreham, Washington, DC
Apr 23-27 '90 Munich, W. Germany
Jun 11-15 '90 Marriott Hotel, Anaheim
Jan 21-25 '91 Grand Kempinski, Dallas
Jun 10-14 '91 Opryland, Nashville
Jan 20-24 '92 Hilton Square, San Francisco
Jun 8-12 '92 Marriott, San Antonio

Publications Available

The following publications are available from the Association Office. Prices and overseas postage charges are per copy. California residents please add applicable sales tax. Payment may be made by check, VISA or MasterCard and **must** be enclosed with the order.

The EUUG Newsletter, which is published four times a year, is available for $4 per copy or $16 for a full-year subscription.

We hope to have EUUG tapes available shortly.

Conference and Workshop Proceedings

Meeting	Location	Date	Price	Overseas Air
USENIX Conference	San Diego	Jan. '89	30	25
C++ Conference	Denver	Oct. '88	30	20
UNIX and Supercomputers Workshop	Pittsburgh	Sep. '88	20	15
USENIX Conference	San Francisco	Jun. '88	20	20
C++ Workshop	Santa Fe	Nov. '87	30	20
Graphics Workshop IV	Cambridge	Oct. '87	10	15
USENIX Conference	Washington DC	Jan. '87	10	20
Graphics Workshop III	Monterey	Dec. '86	10	15

EUUG Proceedings for Spring 1988 (London) and Fall 1988 (Portugal) are available in limited numbers to North American customers at $40 per copy.

Long-Term Calendar of UNIX Events†

1989 Apr 24-28	IEEE 1003	Minneapolis-St. Paul, MN
1989 May 1-2	* Transaction Processing Workshop	Pittsburgh Hilton, Pittsburgh, PA
1989 May 8-12	DECUS	Atlanta, GA
1989 May 14-16	AMIX	Israel
1989 May 16	POSIX Application Workshop	NIST; MD
1989 May	UNIX 8x/etc	/usr/group/cdn; Toronto, Ont.
1989 Jun	NZSUGI	New Zealand
1989 Jun 12-16	USENIX	Hyatt Regency, Baltimore, MD
1989 Jul	JUS 13	Toyko, Japan
1989 Jul 10-14	IEEE 1003	San Francisco, CA
1989 Sep 7-8	* Large Systems Admin. Workshop	Austin Marriott, Austin, TX
1989 Sep 12-13	MALNIX	Kuala Lampur, Malaysia
1989 Sep 18-22	EUUG	Vienna, Austria
1989 Sep 27-29	Workstation Operating Systems	Pacific Grove, CA
1989 Oct 5-6	* Distributed Systems Workshop	Marriott Marina, Ft. Lauderdale, FL
1989 Oct 16-20	IEEE 1003	Brussels (or Amsterdam)?
1989 Nov 1-3	UNIX Expo	New York, NY
1989 Nov 6-10	DECUS	Anaheim, CA
1989 Nov 16-17	* Graphics Workshop V	DoubleTree Hotel, Monterey, CA
1989 Nov	JUS 14	Osaka or Kobe, Japan
1989 Dec	JUS UNIX Fair	Toyko, Japan
1990 Jan 22-26	USENIX	Omni Shoreham, Washington, DC
1990 Jan 23-26	UniForum	Washington Hilton, Washington, DC
1990 Jan 29	IEEE 1003	New Orleans, LA
1990 Feb	UNIX in Government	Ottawa, Ont.
1990 Apr	IEEE 1003	Montreal, Que.
1990 Apr 23-27	EUUG	Munich, Germany (tentative)
1990 May 7-11	DECUS	New Orleans, LA
1990 May	UNIX 8x/etc	/usr/group/cdn; Toronto, Ont.
1990 Jun 11-15	USENIX	Marriott Hotel, Anaheim, CA
1990 Autumn	EUUG	south of France
1991 Jan 21-25	USENIX	Grand Kempinski, Dallas, TX
1991 Jan 22-25	UniForum	Infomart, Dallas, TX
1991 Jun 10-14	USENIX	Opryland, Nashville, TN

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† Partly plagiarized from John S. Quarterman by PHS.

* USENIX Workshops

New Release of 2.10 BSD Available

The second release of 2.10BSD is finally available! It has been designated 2.10.1. Although the changes are fairly simple to describe, they cover large portions of the distribution. Most will not be visible to either users or administrators; specifically, no recompilation is necessary. Administrators should be aware that the 4.3BSD disk quota system is now available. Due to address space considerations, however, it is expensive to run. Also, the source for the on-line manual pages has been rearranged as per the 4.3BSD-tahoe release.

The major change, and the reason for the second release, is an extensive reworking of the kernel to move the networking into supervisor space. This move eliminated most, if not all, of the instabilities seen in the original networking provided with 2.10BSD; it also doubled the speed of, for example, file transfer. As encouragement to sites that encountered difficulties in using the networking in the first release, or encounter difficulties in this release, we have beta sites that have been running for months without crashing, as well as sites with fifty nodes. We are, however, still suspicious of the DEQNA driver...

In application land, many missing pieces of the 4BSD distribution have been added, most notably the FORTRAN compiler and library and the line printer sub-system. Many other programs have had minor (and not-so-minor) fixes applied.

Keith Bostic
Casey Leedom

Because the changes to the kernel are major, no "upgrade" tape will be available. 2.10.1 BSD is only available as source, to appropriate licensees of V7, System III, System V, or 2.9BSD. The cost is $200, prepaid.

The release consists of two 2400 foot, 1600 BPI tapes (approximately 80Mb) and approximately 100 pages of documentation. If you require 800 BPI tapes, please contact USENIX for more information.

If you have questions about the distribution of the release, please contact USENIX at:

2.10BSD
USENIX Association
2560 Ninth Street, Suite 215
Berkeley, CA 94710

+1 415 528-8649
{uunet,ucbvax}!usenix!office

If you have technical questions about the release, please contact Keith Bostic at:

{ucbvax,seismo}!keith
keith@okeeffe.berkeley.edu

+1 415 642-4948

NOTE: There are a few copies of 2.9BSD available. If you do not have split I&D and want to run UNIX on your PDP-11/x, write the USENIX office.

– PHS

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4.3BSD Manuals

The USENIX Association now offers all members of the Association the opportunity to purchase 4.3BSD manuals.[†]

The 4.3BSD manual sets are significantly different from the 4.2BSD edition. Changes include many additional documents, better quality of reproductions, as well as a new and extensive index. All manuals are printed in a photo-reduced 6″×9″ format with individually colored and labeled plastic "GBC" bindings. All documents and manual pages have been freshly typeset and all manuals have "bleed tabs" and page headers and numbers to aid in the location of individual documents and manual sections.

A new Master Index has been created. It contains cross-references to all documents and manual pages contained within the other six volumes. The index was prepared with the aid of an "intelligent" automated indexing program from Thinking Machines Corp. along with considerable human intervention from Mark Seiden. Key words, phrases and concepts are referenced by abbreviated document name and page number.

While two of the manual sets contain three separate volumes, you may only order complete sets.

The costs shown below do not include applicable taxes or handling and shipping from the printer in New Jersey, which will depend on the quantity ordered and the distance shipped. Those charges will be billed by the printer (Howard Press).

Manuals are available now. To order, return a completed "4.3BSD Manual Reproduction Authorization and Order Form" to the USENIX office along with a check or purchase order for the cost of the manuals. You **must** be a USENIX Association member. Checks and purchase orders should be made out to "Howard Press." The manuals will be shipped to you directly by the printer.

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4.2BSD Manuals are No Longer Available

[†] Tom Ferrin of the University of California at San Francisco, a former member of the Board of Directors of the USENIX Association, has overseen the production of the 4.2 and 4.3BSD manuals.

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Local User Groups

The USENIX Association will support local user groups by doing an initial mailing to assist the formation of a new group and publishing information on local groups in *;login:*. At least one member of the group must be a current member of the Association.

CA – Fresno: the Central California UNIX Users Group consists of a *uucp*-based electronic mailing list to which members may post questions or information. For connection information:

Educational and governmental institutions:

Brent Auernheimer (209) 294-4373
brent@CSUFresno.edu or csufres!brent

Commercial institutions or individuals:

Gordon Crumal (209) 875-8755
csufres!gordon (209) 298-8393

CA – Los Angeles: the Los Angeles UNIX Group meets on the 3rd Thursday of each month in Redondo Beach.

Drew Bullard (213) 535-1980
ucbvax!trwrb!bullard

Marc Ries (213) 535-1980
{decvax,sdcrdcf}!trwrb!ries

CO – Boulder: the Front Range UNIX Users Group meets monthly at different sites.

Steve Gaede (303) 938-2985
NBI, Inc.
P.O. Box 9001
Boulder, CO 80301

{boulder,hao}!nbires!gaede

FL – Coral Springs:

S. Shaw McQuinn (305) 344-8686
8557 W. Sample Road
Coral Springs, FL 33065

FL – Melbourne: the Space Coast UNIX Users Group meets at 8pm on the 3rd Wednesday of each month at the Florida Institute of Technology.

Bill Davis (407) 242-4449
bill@ccd.harris.com

FL – Orlando: the Central Florida UNIX Users Group meets the 3rd Thursday of each month.

Mike Geldner (305) 862-0949
codas!sunfla!mike

Ben Goldfarb (305) 275-2790
goldfarb@hcx9.ucf.edu

Mikel Manitius (305) 869-2462
{codas,attmail}!mikel

FL – Tampa Bay: the Tampa UNIX Users Group meets the 1st Thursday of each month in Largo.

Bill Hargen (813) 530-8655
uunet!pdn!hargen

George W. Leach (813) 530-2376
uunet!pdn!reggie

GA – Atlanta: meets on the 1st Monday of each month in White Hall, Emory University.

Atlanta UNIX Users Group
P.O. Box 12241
Atlanta, GA 30355-2241

Marc Merlin (404) 442-4772
Mark Landry (404) 365-8108

MI – Detroit/Ann Arbor: meets the 2nd Thursday of each month in Ann Arbor.

William Bulley (313) 995-6211
web@applga.uucp

Rich McGill (313) 971-5950
rich@oxtrap.uucp

Steve Simmons (313) 426-8981
scs@lokkur.uucp

MI – Detroit/Ann Arbor: dinner meetings the 1st Wednesday of each month.

Linda Mason (313) 855-4220
michigan!/usr/group
P.O. Box 189602
Farmington Hills, MI 48018-9602

MN – Minnetonka: meets the 1st Wednesday of each month.

UNIX Users of Minnesota
545 Ashland Avenue #3
St. Paul, MN 55102

Scott Anderson (612) 688-0089
scott@questar.mn.org

MO – St. Louis:

St. Louis UNIX Users Group
Plus Five Computer Services
765 Westwood, 10A
Clayton, MO 63105

Eric Kiebler   (314) 725-9492
plus5!sluug

NE – Omaha: meets on the 2nd Thursday of each month.

/usr/group nebraska
P.O. Box 44112
Omaha, NE 68144

Kent Landfield   (402) 291-8300
kent@ugn.uucp

New England – Northern: meets monthly at different sites.

Emily Bryant   (603) 646-2999
Kiewit Computation Center
Dartmouth College
Hanover, NH 03755

David Marston   (603) 883-3556
Daniel Webster College
University Drive
Nashua, NH 03063

decvax!dartvax!nneuug-contact

NJ – Princeton: the Princeton UNIX Users Group meets monthly.

Pat Parseghian   (609) 452-6261
Dept. of Computer Science
Princeton University
Princeton, NJ 08544

pep@Princeton.EDU

NY – New York City:

Unigroup of New York
G.P.O. Box 1931
New York, NY 10116

Ed Taylor   (212) 513-7777
{attunix,philabs}!pencom!taylor

New Zealand:

New Zealand UNIX Systems User Group
P.O. Box 13056
University of Waikato
Hamilton, New Zealand

OK – Tulsa:

Pete Rourke
$USR
7340 East 25th Place
Tulsa, OK 74129

PA – Philadelphia: the UNIX SIG of the Philadelphia Area Computer Society (PACS) meets the morning of the 3rd Saturday of each month at the Holroyd Science Building, LaSalle University.

G. Baun, UNIX SIG
c/o PACS
Box 312
La Salle University
Philadelphia, PA 19141

rutgers!{bpa,cbmvax}!
        temvax!pacsbb!{gbaun,whutchi}

TX – Dallas/Fort Worth:

Dallas/Fort Worth UNIX Users Group
Seny Systems, Inc.
5327 N. Central, #320
Dallas, TX 75205

Jim Hummel   (214) 522-2324

TX – San Antonio: the San Antonio UNIX Users (SATUU) meets the 3rd Thursday of each month.

Jeff Mason   (512) 494-9336
Hewlett Packard
14100 San Pedro
San Antonio, TX 78232

gatech!petro!hpsatb!jeff

WA – Seattle: meets monthly.

Bill Campbell   (206) 232-4164
Seattle UNIX Group Membership Information
6641 East Mercer Way
Mercer Island, WA 98040

uw-beaver!tikal!camco!bill

Washington, D.C.: meets the 1st Tuesday of each month.

Washington Area UNIX Users Group
2070 Chain Bridge Road, Suite 333
Vienna, VA 22180

Samuel Samalin   (703) 448-1908

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